

Electronic Supplementary Information

**Activation volumes for *cis-to-trans* isomerisation reactions
of azophenols. A clear mechanistic indicator?**

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Table S1. First order rate constants at 298 K obtained for the azo derivatives **3-7** as a function of solvent and pressure. The concentration of the azo derivative is 1×10^{-5} M in all cases (unless otherwise stated).

Compound	Solvent	<i>P</i> / atm	<i>k</i> / s⁻¹
3	EtOH	50	4.9
		300	4.7
		600	4.4
		900	4.1
		1200	4.1
		1500	4.0
	MeOH	50	7.3
		300	7.0
		600	6.7
		900	6.1
		1200	6.0
		1500	6.1
	MeCN	50	1.8
		300	1.9
		600	1.9
		900	2.1
		1200	2.0
		1500	2.1
	MePh	300	7.5×10^{-4}
		600	6.6×10^{-4}
		900	6.9×10^{-4}
1200		6.7×10^{-4}	
1500		6.8×10^{-4}	

Compound	Solvent	<i>P</i> / atm	<i>k</i> / s⁻¹
4	EtOH	50	9.5×10^1
		300	8.4×10^1
		600	6.7×10^1
		900	5.5×10^1
		1200	4.9×10^1
		1500	4.1×10^1
	MeCN	50	5.3
		300	5.3
		600	6.8
		900	7.7
		1200	8.2
		1500	9.3
	MePh	300	1.0×10^{-3}
		600	8.0×10^{-4}
		900	1.2×10^{-3}
		1200	1.1×10^{-3}
		1500	9.7×10^{-4}

Compound	Solvent	<i>P</i> / atm	<i>k</i> / s⁻¹
5	EtOH	50	6.6×10^1
		300	5.6×10^1
		600	5.1×10^1
		900	4.0×10^1
		1200	3.5×10^1
		1500	3.1×10^1
	MeOH	50	3.9×10^2
		300	3.4×10^2
		600	2.9×10^2
		900	2.6×10^2
		1200	2.5×10^2
		1500	2.2×10^2
	MeCN	50	5.2
		300	9.0
		600	1.0×10^1
		900	9.4
		1200	1.3×10^1
		1500	1.7×10^1
	MePh	300	1.6×10^{-3}
		600	1.5×10^{-3}
		900	1.5×10^{-3}
1200		1.5×10^{-3}	
1500		1.4×10^{-3}	

Compound	Solvent	<i>P</i> / atm	<i>k</i> / s⁻¹
6	EtOH	50	2.4×10^2
		300	2.7×10^2
		600	3.1×10^2
		900	3.5×10^2
		1200	3.8×10^2
		1500	4.8×10^2
	MeCN	50	1.9×10^1
		300	2.1×10^1
		600	2.2×10^1
		900	2.5×10^1
		1200	2.9×10^1
		1500	2.9×10^1
	MePh	50	7.4
		300	7.8
		600	8.2
		900	9.9
		1200	8.5
		1500	8.1

Compound	Solvent	<i>P</i> / atm	<i>k</i> / s⁻¹
7	EtOH	300	1.5×10^1
		600	1.8×10^1
		900	2.0×10^1
		1200	2.0×10^1
		1500	2.2×10^1
	MeCN	50	5.0
		300	5.4
		900	6.2
		1200	6.5
		1500	7.3
	MePh	50	2.6
		300	2.9
		600	2.7
		900	3.1
		1200	2.5
		1500	2.9